SUBPART BB & CC PRESENTATION

TARGETING

- **Facilities that store organic hazardous waste in tank systems**
- **TSDFs**
- **LQGs**

How do we target

- **RCRAInfo**
- **TRI Data**
- **Biennial Reports**
- **Ask states to provide facilities that have tank storage**
- **Manifest data**

Industries

1. **Electronics Industry**
   - **Xerox**
   - **AZEM**
   - **Kodak**

2. **Pharmaceutical Industry**
   - **Schering Plough**
   - **Searle (Pfizer)**
   - **Upjohn Pharmacia (Pfizer)**
   - **Lilly Del Caribe**
   - **MOVA**
   - **Wyeth Ayerst**

3. **Fragrances & Flavors**
   - **Givaduan**
   - **Firmenich**

4. **Miscellaneous**
   - **GSF Energy (Landfill gas)**
   - **Witco (Plastizer)**

ENFORCEMENT

- **Region 2 initiated about 20 complaints with proposed penalties of over 1.7 million dollars in penalties**

- **Settled for over 1.2 million dollars**

- **70 % of the cases -LQGs**

Subpart BB Questions-Inspection

- **Are you in compliance with Subpart BB?**

  Typical answers

- **We have a title 5 permit**

- **That's not applicable to us**

- **The pumps and valves are part of the manufacturing unit**

- **We missed it-we are not familiar with that rule**

SUBPART BB-300 HOURS EXEMPTION

- **Facilities claim that they use equipment for less than 300 hours**
- **Before they can claim that exemption, they have to list the equipment in their operating records**

SUBPART BB APPLICABILITY

- **Subpart BB applies to hazardous waste with organic content of 10 % or more**

LIGHT LIQUID SERVICE

- **For a hazardous waste to be in light liquid service, the vapor pressure of one or more of the organic constituents in the material must be greater than 0.3 Kilopascals at 20 degrees C and the total concentration of pure organic constituents having a vapor pressure greater than 0.3 kilopascals at 20 degrees Centigrade is equal to or greater than 20 percent by weight**

VALVES IN LIGHT LIQUID SERVICE

- **Should be monitored on a monthly basis, if no leaks in two months, may be monitored on a quarterly basis**

- **If quarterly monitoring is done, should be monitored in the first month of the calendar quarter**

- **Facilities have the option to do alternative monitoring**

- **In this case, the RA has to be notified and a performance test has to be done within a specified time period**

- **There are two alternative standards**

VALVES IN LIGHT LIQUID SEVICE (CONT'D)

- **40 CFR § 264/265 . 1061**
- **40 CFR § 264/265 . 1062**

PUMPS IN LIGHT LIQUID SERVICE

- **Pumps should be monitored on a monthly basis and inspected on a weekly basis**

- **Pumps with barrier fluids have other requirements**

- **Pumps designated as Non Detectable Emissions may be monitored on an annual basis if they meet certain conditions**

PUMPS AND VALVES IN HEAVY LIQUID SERVICE, PRESSURE RELIEF VALVES IN LIGHT/HEAVYLIQUID SERVICE, AND FLANGES/ OTHER CONNECTORS IN LIGHT/HEAVY LIQUID SERVICE

- **Any liquid that is not light liquid is heavy liquid**

- **If a leak is observed (visual, olfactory, audible or any other method), monitoring shall be done within 5 days**

LEAKS AND REPAIRS

- **In Subpart BB, if a leak is discovered, a first attempt to repair shall be made within 5 days and repairs completed no later than 15 days**

- **A leak is defined to be above 10, 000 ppm**

MONITORING REQUIRED BY SUBPART BB

- **Monitoring shall be done according to Method 21**

- **Instruments used for monitoring include the OVA 108, Foxboro TVA 1000 A, 1000B**

CALIBRATION OF EQUIPMENT

- **A calibration precision test shall be done before the instrument is placed in service and every 3 months thereafter or whenever the instrument is used again if more than 3 months has elapsed**

- **The instrument shall be calibrated with zero gas < 10ppm HC) and with a 10,000 ppm methane or hexane standard**

- **For NDE, a 500 ppm standard is used**

CALIBRATION (CONT'D)

- **Calibration gases must have a specified shelf-life (usually 3 years)**
- **Calibration must be within a 2.5 % accuracy**
- **If the instrument readout does not correspond with the calibration gas value, an adjustment shall be made**
- **If the adjustment cannot be made, then the instrument should be sent for servicing**

SUBPART BB VIOLATIONS

- **Failure to mark equipment subject to Subpart BB**
- **Failure to list equipment subject to Subpart BB**
- **Failure to monitor valves subject to Subpart BB**
- **Failure to monitor pumps subject to Subpart BB**
- **Failure to inspect pumps subject to Subpart BB**
- **Failure to test pumps subject to Subpart BB**
- **Failure to test valves subject to Subpart BB**

SUBPART BB VIOLATIONS (CONT'D)

- **Failure to perform precision testing**
- **Failure to calibrate with a gas with specified shelf life**
- **Failure to adjust the instrument to within 2.5 % of the calibration gas value**

SUBPART CC

- **The Subpart CC regulations apply to Large Quantity Generators and TSD Facilities that manage Hazardous Waste of Volatile Organic Concentration of 500ppmw or more on an average annual basis in Tanks and Containers.**

SUBPART CC-TANK STORAGE

- **For Tank Storage, there are two levels that a facility may use to manage their waste.**

- **Tank Level 1 requires a fixed roof tank which uses a maximum organic vapor pressure to comply with Subpart CC.**

- **Tank Level 2 designs can be one of five options. These are: (1) an Internal Floating Roof (2) an External Floating Roof (3) a tank with a Fixed Roof vented through a closed vent system to a control device**

  (4) a Pressure Tank

  (5) a tank located inside an enclosure that is vented through a closed vent system to an enclosed combustion device.

SUBPART CC-TANK STORAGE

- **Most of the facilities will comply with Tank Level 1 which is the easiest to follow.**

- **The other option that will be seen a lot would be Tank level 2 Option 3.**

CONTAINER STORAGE

- **For Container Storage, most of the facilities will store their waste in DOT approved containers. RCRA regulations already cover such storage and as a result, most facilities will be in compliance with the container storage regulations of the Subpart CC regulations**

SUBPART CC-CONTAINER STORAGE

LEVEL ONE

- **OPTION 1-Meet DOT standards.**

- **OPTION 2-Use a cover and closure device on the container and ensure that there are no visible gaps in the interior of the container or holes in the covers.**

- **OPTION 3-Use vapor supressing barrier on or above the hazardous waste in the container.**

SUBPART CC-CONTAINER STORAGE

LEVEL TWO

- **OPTION 1-The container must meet DOT specifications.**

- **OPTION 2-Operates with no detectable emissions from the container under Method 21.**

- **OPTION 3-Demonstrated to be vapor tight within the last twelve months using Method 27.**

SUBPART CC-CONTAINER STORAGE

LEVEL THREE

- **Container must be used for waste stabilization.**
- **Vent vapors from containers and remove or destroy them in a control device.**
- **Put container in a "Procedure T Enclosure" and, vent vapors, and destroy them in a control device.**

SUBPART CC

VIOLATIONS FOUND

- **Failure to calculate the Organic Vapor Pressure of the waste in the tank**
- **Failure to secure closure devices on top of tank**
- **Failure to perform initial and annual inspections of tanks**
- **Failure to show that a container is operating at NDE**

PROBLEMS FACED IN DEVELOPING CASE

- **Subpart BB does not require facilities to keep records of calibrations and monitoring, only required to keep records of leaks**

- **Most facilities will keep records and will present them for review**

- **Facility personnel will tell you what their operating procedure is**

- **Need to send out a 3007 Information request letter**

- **Now sending out 3007/NOV combination letter-to satisfy Enforcement Response Policy of notifying a SNC of violations**

PROBLEMS FACED IN DEVELOPING CASE (CONT'D)

- **Some of the information would not be consistent with what was told at inspection**
- **Have to use information provided in the 3007 IRL response (as per attorney)**
- **Facilities would present a lot of irrelevant paperwork.**
- **Develop your case on the evidence you have documentation for**

KODAK

- **TSD & Large Quantity Generator**
- **Facility was complying with the Subpart BB and CC for major portion of the facility**
- **Did an inspection in June 1999**
- **Facility claimed manufacturing exemption for equipment transporting hazardous waste, recyclable material and reusable material**
- **Region 2's position is that as long as equipment is used to transport hazardous waste for more than 300 hours, Subpart BB applies (HQ concurred with the Region)**

KODAK

- **EPA HQ's longstanding position is that if process equipment is used to transport hazardous waste at times, the equipment is regulated under Subpart J and now under Subpart BB .**

- **Kodak's main concern was the compliance with Subpart J for the equipment**

- **Equipment not monitored -171 pumps and 146 pumps in 73 areas**

- **Violations cited-Failure to monitor valves and pumps**

- **Failure to inspect pumps**

- **Failure to determine that 26 containers were operating at NDE**

KODAK

- **Initial penalty was $303, 000**
- **Adjusted penalty was $202, 000**
- **Facility settled for $175, 000**

PATHEON MOVA

- **Pharmaceutical Company**
- **Does Contract Manufacturing**
- **Got contract to manufacture allegra**
- **Put in two storage tanks to store hazardous waste**
- **Started to store hazardous waste in the tanks without complying with Subpart BB and CCand Subpart J in December, 2004**

SUBPART BB &CC-INSPECTION

- **Inspection conducted on June 14, 2006**
- **Facility uses methylene chloride to coat tablets**
- **Methylene chloride vapors are vented using blowers and a duct system and are passed through a carbon adsorbtion system**
- **Methylene chloride and water condenses and is separated**
- **Spent methylene chloride and aqueous waste pumped to separate tanks**

SUBPART BB & CC -VIOLATIONS

- **Inspector observed 13 valves and 3 pumps attached to the tank system**
- **Facility did not comply with the Subpart BB and CC regulations**
- **Facility also did not comply with the Subpart J requirements**

SUBPART BB &CC- ENFORCEMENT

- **NOV/3007 letter sent out on July 20, 2006**
- **Identified violations**
- **Asked facility for information to build case**
- **Facility sent response on September 22, 2006**

SUBPART BB &CC- ENFORCEMENT 3007 RESPONSE

- **Facility identified Subpart BB equipment**
- **Identified 3 pumps subject to requirements**
- **Identified 37 valves subject to requirements**
- **Did not conduct initial Subpart BB inspection**
- **Did not conduct annual Subpart BB inspection**
- **Did not determine maximum organic vapor pressure of organic hazardous waste in tank**
- **Started to do daily inspections for RCRA from March 2005**

CASE DEVELOPMENT

- **After review of 3007, asked facility for any initial inspection that was done for the tank system-tank assessment, etc.**

- **Facility responded that it did not have a certified tank assessment**

- **In addition to Subpart CC violations for tank, there are now Subpart J violations**

- **Facility asked for a meeting with EPA prior to issuance of complaint and opted for expedited settlement**

Subpart BB & CC-Enforcement

- **Failure to monitor valves**
- **Failure to monitor pumps**
- **Failure to inspect pumps**
- **Failure to determine maximum organic vapor pressure of hazardous waste stored in tank**
- **Failure to perform daily inspection of tank system from December 2004 to March 2005**
- **Failure to perform tank assessment prior to storing hazardous waste in tank system**

SUBPART BB & CC- ENFORCEMENT PENALTY

- **If complaint was issued, penalty would have been in $ 125,000 -$130,000 range**
- **EPA offered to settle for $ 80,000**
- **Facility accepted EPA's offer**